

Application No. 10/825,371
Reply dated January 14, 2005
Response to Office Action dated October 19, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-9. (cancelled)

10. (new) A spray element for a spray head, comprising:

a casing including a first chamber, a cylindrical section, a second cylindrical chamber, and a connecting bore, wherein the cylindrical section is placed between the first chamber and the second cylindrical chamber, and wherein the first chamber is connected a medium to be sprayed;

a valve including a control piston having first and second end portions, a rod connecting the first and second end portions, and a sealing ring disposed on the first end portion; and

a spray nozzle disposed in the casing, which spray nozzle can be fed through the valve with compressed air and with the medium to be sprayed,

wherein the first end portion of the control piston has a smaller diameter than the second end portion and is guided with the sealing ring in the cylindrical section of the casing,

wherein the second end portion is guided in the second cylindrical chamber and divides the second cylindrical chamber into a first section, which is connected with the spray nozzle through the connecting bore, and a second section which is connected with control air, and

wherein the distance between the end portions of the control piston is chosen such that the sealing ring in a starting position of the control piston lies sealingly in the cylindrical section and, upon the application of control air to the second end portion, enters the first chamber so as to allow the medium to be

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sprayed to flow through the cylindrical section into the second cylindrical chamber.

11. (new) The spray element according to claim 10, wherein the casing has a projection for receiving the spray nozzle.

12. (new) The spray element according to claim 11, wherein the projection is integral with the rest of the casing.

13. (new) The spray element according to claim 10, wherein connections for the control air, the medium to be sprayed and compressed air are disposed on a side of the casing which faces away from a discharge orifice of the spray nozzle.

14. (new) A method for making a spray element for a spray head, comprising:

placing a cylindrical section of a casing of the spray element between a first chamber and a second cylindrical chamber of the casing of the spray element;

connecting the first chamber to a medium to be sprayed;

disposing a spray nozzle in the casing, which spray nozzle can be fed through a valve with compressed air and with the medium to be sprayed, wherein a first end portion of a control piston of the valve has a smaller diameter than a second end portion of the control piston;

placing the first end portion of the control piston with a sealing ring in the cylindrical section of the casing;

placing the second end portion of the control piston in the second cylindrical chamber, thus dividing the second cylindrical chamber into a first section, which is connected with the spray nozzle through a connecting bore of the casing, and a second section, which is connected with control air; and

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choosing the distance between the end portions of the control piston such that the sealing ring in a starting position of the control piston lies sealingly in the cylindrical section and, upon the application of control air to the second end portion, enters the first chamber so as to allow the medium to be sprayed to flow through the cylindrical section into the second cylindrical chamber.